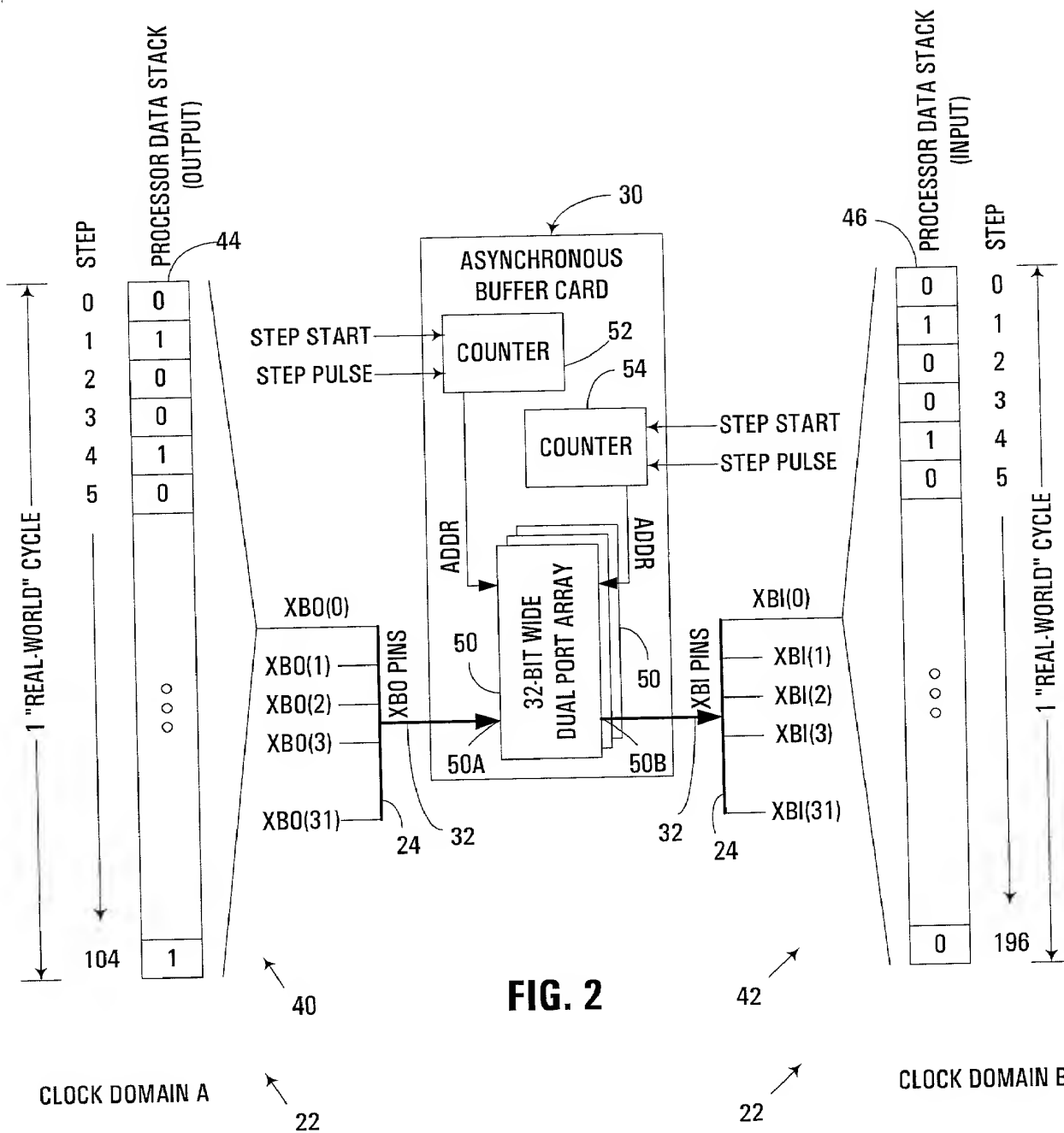


FIG. 1



CLOCK DOMAIN A

ASYNCHRONOUS BUFFER CARD

CLOCK DOMAIN B

TIME	STEP PULSE	STEP #	VALUE	ARRAY INPUT	CNTR A	[0]	[1]	[2]	[3]	[4]	[5]	CNTR B	ARRAY OUTPUT	STEP PULSE	STEP #	VALUE READ
0	ACTIVE	0	X	X	X	X	X	X	X	X	X	X	X	ACTIVE	0	X
1	ACTIVE	1	BUSB(9)=1	X	RESET 0	X	X	X	X	X	X	X	X	ACTIVE	1	BUSB(9)=1
2	ACTIVE	2	ENABLE=0	1	1	X	1	X	X	X	X	X	X	ACTIVE	2	ENABLE=0
3	ACTIVE	3	FLUSH=0	0	2	X	1	0	X	X	X	RESET 0	X	ACTIVE	3	FLUSH=0
4	ACTIVE	4	X	0	3	X	1	0	0	X	X	1	1	ACTIVE	0	BUSB(9)=1
5	ACTIVE	5	X	X	4	X	1	0	0	X	X	2	0	ACTIVE	1	ENABLE=0
6	ACTIVE	6	X	X	5	X	1	0	0	X	X	3	0	ACTIVE	2	FLUSH=0
7	ACTIVE	7	X	X	5	X	1	0	0	X	X	3	0	ACTIVE	3	FLUSH=0
8	ACTIVE	8	X	X	5	X	1	0	0	X	X	3	0	ACTIVE	0	BUSB(9)=1
9	ACTIVE	9	X	X	5	X	1	0	0	X	X	3	0	ACTIVE	1	ENABLE=0
10	ACTIVE	10	X	X	5	X	1	0	0	X	X	RESET 0	X	ACTIVE	2	FLUSH=0
11	ACTIVE	11	X	X	5	X	1	0	0	X	X	1	1	ACTIVE	3	FLUSH=0
12	ACTIVE	12	X	X	5	X	1	0	0	X	X	2	0	ACTIVE	0	BUSB(9)=1
13	ACTIVE	13	X	X	5	X	1	0	0	X	X	3	0	ACTIVE	1	ENABLE=0
14	ACTIVE	14	X	X	5	X	1	0	0	X	X	3	0	ACTIVE	2	FLUSH=0
15	ACTIVE	15	X	X	5	X	1	0	0	X	X	3	0	ACTIVE	3	FLUSH=0
16	ACTIVE	16	BUSB(9)=0	X	RESET 0	X	1	0	0	X	X	3	0	ACTIVE	0	BUSB(9)=0
17	ACTIVE	17	ENABLE=1	0	1	X	0	0	0	X	X	RESET 0	X	ACTIVE	1	ENABLE=1
18	ACTIVE	18	FLUSH=0	1	2	X	0	1	0	X	X	1	0	ACTIVE	2	FLUSH=0
19	ACTIVE	19	X	0	3	X	0	1	0	X	X	2	1	ACTIVE	3	FLUSH=0
20	ACTIVE	20	X	X	4	X	0	1	0	X	X	3	0	ACTIVE	0	BUSB(9)=0
21	ACTIVE	21	X	X	5	X	0	1	0	X	X	3	0	ACTIVE	1	ENABLE=1
22	ACTIVE	22	X	X	5	X	0	1	0	X	X	3	0	ACTIVE	2	FLUSH=0
23	ACTIVE	23	BUSB(9)=0	X	RESET 0	X	0	1	0	X	X	3	0	ACTIVE	3	FLUSH=0
24	ACTIVE	24	ENABLE=1	0	1	X	0	1	0	X	X	3	0	ACTIVE	0	BUSB(9)=0
25	ACTIVE	25	FLUSH=1	1	2	X	0	1	0	X	X	3	0	ACTIVE	1	ENABLE=1
26	ACTIVE	26	X	X	3	X	0	1	1	X	X	3	0	ACTIVE	2	FLUSH=0
27	ACTIVE	27	X	X	4	X	0	1	1	X	X	3	0	ACTIVE	3	FLUSH=0
28	ACTIVE	28	X	X	5	X	0	1	1	X	X	3	0	ACTIVE	0	BUSB(9)=0
29	ACTIVE	29	X	X	5	X	0	1	1	X	X	3	0	ACTIVE	1	ENABLE=1
30	ACTIVE	30	BUSB(9)=1	X	RESET 0	X	0	1	1	X	X	RESET 0	X	ACTIVE	2	FLUSH=0
31	ACTIVE	31	ENABLE=0	1	1	X	1	1	1	X	X	1	X (Unstable)	ACTIVE	3	FLUSH=0
32	ACTIVE	32	FLUSH=0	0	2	X	1	0	1	X	X	2	X (Unstable)	ACTIVE	0	BUSB(9)=1
33	ACTIVE	33	X	0	3	X	1	0	0	X	X	3	X (Unstable)	ACTIVE	1	ENABLE=0
34	ACTIVE	34	X	X	4	X	1	0	0	X	X	3	X	ACTIVE	2	FLUSH=0
35	ACTIVE	35	X	X	5	X	1	0	0	X	X	RESET 0	X	ACTIVE	3	FLUSH=0
36	ACTIVE	36	X	X	5	X	1	0	0	X	X	1	0	ACTIVE	0	BUSB(9)=1
37	ACTIVE	37	X	X	5	X	1	0	0	X	X	2	1	ACTIVE	1	ENABLE=0
38	ACTIVE	38	X	X	5	X	1	0	0	X	X	3	1	ACTIVE	2	FLUSH=0

FIG. 3